



# **Using the CYCLOPS-7 Protective/Shade Cap**

### Introduction

The following information will describe how to use the Protective/Shade Cap, P/No. 2100-700 with any version of the CYCLOPS-7 fluorometers, (Chlorophyll *a*, Rhodamine WT, etc).

The main benefits of using the Cap are:

- It greatly limits sunlight reaching the optical surface of the CYCLOPS-7 fluorometer when the fluorometer is deployed in shallow water such as a stream.
- 2) It provides protection for the optical surface of the CYCLOPS-7. This would be useful whenever the fluorometer is being deployed in shallow waters, or when it is in contact with the bottom or other objects, or is in a fast moving current.
- 3) It prevents seaweed, leaves, and other debris from obstructing the optical path.

The Shade Cap is easily mounted on the CYCLOPS-7 fluorometer and provides good long term mechanical protection.

## Installing the Cap

- 1. Before installing the Protective/Shade Cap you should ensure that the CYCLOPS-7 is completely clean and dry.
- 2. To install the Cap on the fluorometer, insert the optical end of the fluorometer into the retaining sleeve of the Cap. Gently push the fluorometer in until it touches the lower rim of the cap.
- 3. Check that the distance between the retaining sleeve and the end of the fluorometer sleeve is ~1.25", (see Fig 1).
- 4. Tighten the retaining sleeve finger screw, (see Fig 1) by hand for a tight fit. (Do not use excessive strength, pliers or other tools).



Figure 1
The CYCLOPS-7 fluorometer is inserted in the
Protective/Shade Cap. The measurement points for
correct insertion length of the fluorometer are shown.

5. Secure the shade cap using the lanyard tie point. The other end of the lanyard should be attached to the CYCLOPS-7 fluorometer thereby securing the shade cap to the fluorometer.

## Cap Maintenance

The Protective/Shade Cap should be checked periodically for accumulation of debris, etc on the inside of the cap that could block the optics of the fluorometer. Such accumulation could cause loss of sensitivity and errors in calibration.

<sup>1</sup> Note that the lanyard is a customer furnished accessory.

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